

New Records of the Cychrini and Carabini (Coleoptera, Carabidae) from Hubei Province in Central China, with Descriptions of Three New Subspecies

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Abstract Nine taxa of the tribes Cychrini and Carabini are recorded from Hubei Province in Central China. Of these, three are described as new subspecies under the names *Cychrus bispinosus dalaoshanicus*, *Apotomopterus longeantennatus dalaonis* and *A. manlius luecongponis*.

Through the courtesy of Mr. Jaroslav TURNA, I recently had an opportunity to examine a series of carabine specimens collected from Hubei Province in Central China. In this paper, I am going to give the new records of totally nine taxa belonging to the genera *Cychrus*, *Apotomopterus*, *Isiocarabus* and *Coptolabrus*, three of which will be described as new subspecies. For the higher classification of the subtribe Carabina, I will follow the system proposed by myself (IMURA, 2002).

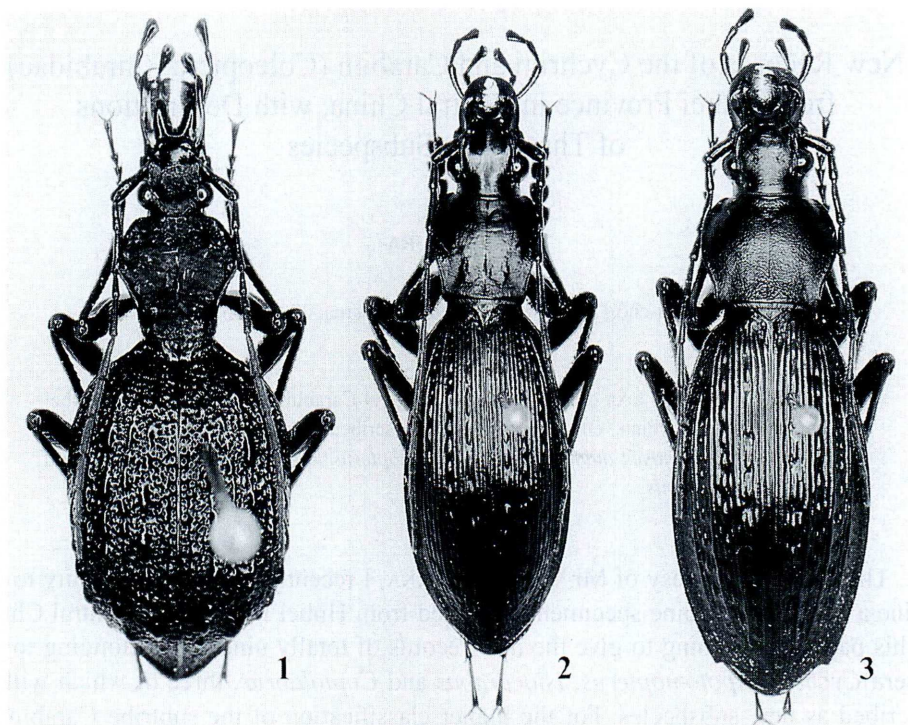
Before going further, I wish to thank Mr. Jaroslav TURNA (Czech Republic) for his kind help in various ways. Hearty thanks are also due to Dr. Shun-Ichi UÊNO (National Science Museum, Tokyo) for reading the manuscript of this paper.

1. *Cychrus bispinosus dalaoshanicus* IMURA, subsp. nov.

(Fig. 1)

Description. Length: 17.6 mm (including mandibles). Entirely black except for mandibles, palpi, antennae and tarsi which are reddish brown. Head and pronotum rather mat, marginal areas of pronotum and elytra rather strongly polished. Allied to subsp. *dabashanensis* IMURA (1995, p. 125) of the Daba Shan Mountains in northeastern Chongqing or subsp. *shennongding* IMURA, ZHOU et SU (1999, p. 653) of Dashennongjia in western Hubei, but readily discriminated from them as follows: 1) pronotum less strongly convergent towards apex, with the polished marginal areas wider and more strongly reflexed above; 2) hind angles of pronotum much more strongly protruded posteriad, with the apices more sharply pointed; 3) elytra a little more strongly polished, with the granules between intervals larger and irregularly connected with one another.

Holotype: ♀, Dalao Shan [大老山] Forest Park (31°03'N/110°57'E), in the west-



Figs. 1–3. Holotypes of newly described taxa from Hubei in Central China. — 1, *Cychrus bispinosus dalaoshanicus* from Dalao Shan; 2, *Apotomopterus longeantennatus dalaonis* from Dalao Shan; 3, *A. manlius luecongponis* from Lücongpo.

ern part of Yichang Xian [宜昌县] near the borders of Xingshan Xian [兴山县] and Zigui Xian [秭归县], in western Hubei, Central China, 9~15–VI–2004, deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo (=NSMT).

2. *Apotomopterus longeantennatus satoi* IMURA, 2003

Apotomopterus longeantennatus satoi IMURA, 2003, Spec. Bull. Jpn. Soc. Coleopterol., Tokyo, (6), p. 57, figs. 1–2, 5; type locality: Shiruguan, 1,750 m in altitude, Xinglong Zhen of Fengjie Xian, in Chongqing Shi, Southwest China.

Specimens examined. 44♂♂, 65♀♀, ca. 3 km south of Lücongpo [绿葱坡] (30°48'N/110°15'E), in the central part of Badong Xian [巴东县], in western Hubei, Central China, 20–V~11–VI–2004, in colls. Y. IMURA & J. TURNA.

Notes. At the above locality, this race is sympatric with *Apotomopterus manlius luecongponis*, *A. prattianus prattianus* and *Coptolabrus principalis principalis*.

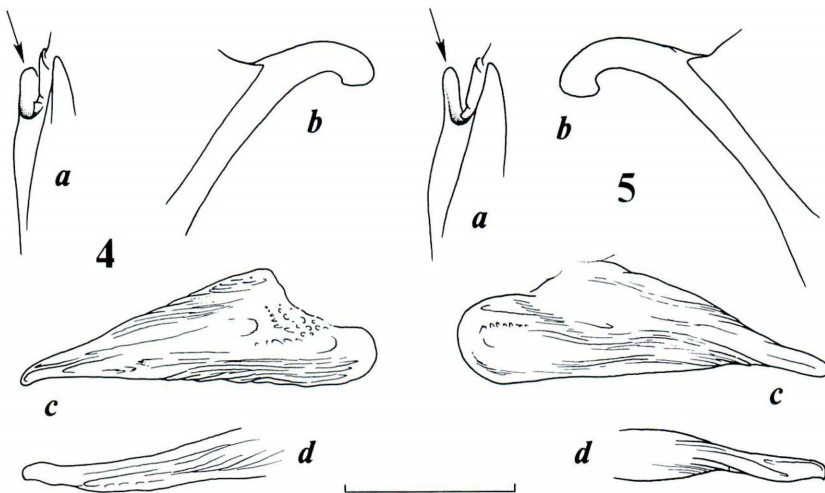
3. *Apotomopterus longeantennatus dalaonis* IMURA, subsp. nov.

(Figs. 2, 4)

Description. Length: 24.8–27.0 mm (including mandibles). Entirely black and not strongly polished. Most closely allied to subsp. *satoi* IMURA (2003, p. 57) distributed from Chongqing Shi to western Hubei on the southern bank of the Chang Jiang River, but differs from that race in the following points: 1) appendages almost entirely black, while they are more or less red-brownish in subsp. *satoi*; 2) head a little more hypertrophic in both sexes; 3) median tooth of mentum not prominently protruded ventrad as in subsp. *satoi* but almost flat in lateral view; 4) hind angles of pronotum more strongly protruded posteriad; 5) apical lobe of aedeagus a little shorter, less strongly bent ventrad and less remarkably hooked at the tip; 6) spinula a little more acutely narrowed towards apex. The present new subspecies must be compared with subsp. *changyangensis* KLEINFELD (1998, p. 487) described from Changyang of southwestern Hubei, but definitely differs from that race in having much shorter and less strongly hooked aedeagal apex.

Type series. Holotype: ♂, Dalao Shan Forest Park (31°03'N/110°57'E), in the western part of Yichang Xian near the borders of Xingshan Xian and Zigui Xian, in western Hubei, Central China, 9~15-VI-2004, in coll. NSMT. Paratypes: 7 ♀♀, same data as for the holotype, in colls. Y. IMURA & J. TURNA.

Notes. This is the first record of *Apotomopterus longeantennatus* from the northern side of the Chang Jiang River. At the type locality, the new race occurs sympatrically with *Isiocarabus dargei tianzhuicus*.



Figs. 4–5. Mentum and male genital organ of *Apotomopterus longeantennatus* subsp. — 4, Subsp. *dalaonis* (holotype, with inverted genitalia); 5, subsp. *satoi* (holotype). — a, Mentum in left lateral view (arrow indicates median tooth); b, apical part of aedeagus in left (4) or right (5) lateral view; c, spinula in dorsal view; d, ditto in lateral view. Scale: 1 mm.

4. *Apotomopterus luschanensis luschanensis* HAUSER, 1919

Apotomopterus Luschanensis HAUSER, 1919, Soc. ent., Stuttgart, **34**, p. 25; type locality: Luschan (=Lu Shan), einem Gebirgszug nördlich von Kiu Kiang (=Jiujiang).

Specimen examined. 1 ♀, Mt. Jiugong Shan [九宫山] (29°24'N/114°42'E), in the southern part of Tongshan Xian [通山县], in southeastern Hubei, Central China, 5~28-V-2004, in coll. J. TURNA.

Notes. This long-established species has been known so far only from the type locality, and is recorded for the first time from Hubei Province. On Jiugong Shan, the present race is sympatric with *Apotomopterus sauteri eleganticollis* and *Coptolabrus augustus augustus*.

5. *Apotomopterus manlius luecongponis* IMURA, subsp. nov.

(Fig. 3)

Description. Length 27.1–28.8 mm (including mandibles). Entirely black, with a faint purple-brownish tinge on elytra. Discriminated from the nominotypical *manlius* IMURA (1995, p. 305) of the Daba Shan Mountains by the following points: 1) dorsal surface of elytra with a faint purple-brownish tinge, while it is nearly piceous in the nominotypical subspecies; 2) pronotum a little less acutely narrowed towards apex, its lateral margins more remarkably reflexed above, disc a little less strongly convex above, and the hind angles more prominently protruded posteriad; 3) elytral intervals with the primary callosities narrower and more weakly convex above, tertiaries not reduced to rows of granules but indicated by linearly continuous low costae though partly and irregularly interrupted; 4) preapical emarginations of elytra in female a little shallower.

Type series. Holotype: ♀, ca. 3 km south of Lücongpo (30°48'N/110°15'E), in the central part of Badong Xian, in western Hubei, Central China, 20-V~11-VI-2004, in coll. NSMT. Paratypes: 2 ♀♀, same data as for the holotype, in coll. J. TURNA.

6. *Apotomopterus prattianus prattianus* BATES, 1890

Carabus prattianus BATES, 1890, Entomologist, Dorking, **23**, p. 210; type locality: Ichang (=Yichang).

Specimens examined. 13 ♂♂, 11 ♀♀, ca. 3 km south of Lücongpo (30°48'N/110°15'E), in the central part of Badong Xian, in western Hubei, Central China, 20-V~11-VI-2004, in colls. Y. IMURA & J. TURNA.

7. *Apotomopterus sauteri eleganticollis* DEUVE et IMURA, 1992

Carabus (Apotomopterus) eleganticollis DEUVE et IMURA, 1991, Elytra, Tokyo, **19**, p. 142, figs. 1, 5; type locality: Chine, Jiangxi, Mont Lu Shan.

Carabus (Apotomopterus) sauteri eleganticollis: IMURA, 1994, Elytra, Tokyo, **22**, p. 11.

Specimens examined. 10♂♂, 10♀♀, Mt. Jiugong Shan (29°24'N/114°42'E), in the southern part of Tongshan Xian, in southeastern Hubei, Central China, 5~28-V-2004, in colls. Y. IMURA, J. TURNA & V. RYJACEK.

Notes. Though somewhat different in configuration of the pronotum and aedeagal apex, the Jiugong Shan specimens almost agree with subsp. *eleganticollis* described from the Lu Shan, which is located about 120 km east of Jiugong Shan.

8. *Isiocarabus dargei tianzhuicus* IMURA, 1996

Carabus (Isiocarabus) kiukiangensis tianzhuicus IMURA, 1996, Gekkan-Mushi, Tokyo, (299), p. 13, fig. 8 (p. 2, pl. I); type locality: Tianzhu Mts., 600–1,300 m alt., Qianshan Xian, SW Anhui, China.

Carabus (Isiocarabus) dargei tianzhuicus: DEUVE, 2004, Ill. Cat. *Carabus* World, Pensoft, Sofia–Moscow, p. 130.

Specimen examined. 1♀, Dalao Shan Forest Park (31°03'N/110°57'E), in the western part of Yichang Xian near the borders of Xingshan Xian and Zigui Xian, in western Hubei, Central China, 9~15-VI-2004, in coll. Y. IMURA.

Notes. Though recorded under the name as shown above, taxonomic account of the Dalao Shan specimen is still tentative, since only a single female specimen is now available for study. It is somewhat different from typical *tianzhuicus* in having a little robuster and more strongly convex elytra.

9. *Coptolabrus augustus augustus* BATES, 1888

Coptolabrus augustus BATES, 1888, Proc. zool. Soc. London, **1888**, p. 381; type locality: Kiu-Kiang (=Jiujiang).

Specimens examined. 1♂, 1♀, Mt. Jiugong Shan (29°24'N/114°42'E), in the southern part of Tongshan Xian, in southeastern Hubei, Central China, 5~28-V-2004, in colls. Y. IMURA & J. TURNA; 1♀, ca. 20 km northwest of Tongshan (29°42'N/114°18'E), in Tongshan Xian, 7~17-VI-2004, in coll. J. TURNA.

Notes. All the above specimens well agree in every feature with the nominotypical *augustus* from Jiujiang. This is the first record of the species from Hubei Province.

要 約

井村有希：中国湖北省におけるオサムシ類の記録と3新亜種の記載。—— 中国湖北省西部の大老山と緑葱坡、および南東部の九官山と通山から、8種9亜種のオサムシ類を記録し、そのうちのみつつを新亜種として記載した。

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